

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (original): A method of manufacturing a glass gob, comprising the steps of :
receiving a down-flowing molten glass on a molding die;
moving down the molding die at a speed higher than a down-flowing speed of the molten glass so as to cut the molten glass;
remaining the molten glass with a predetermined weight on the molding die; and
spraying the molten glass with gas in order to form the glass gob under such a condition that the molten glass is floated or slightly floated,
wherein the receiving step is carried out by spraying the molten glass with gas having a flow rate lower than the gas used in the spraying step, or the receiving step is carried out without performing the gas spraying.
2. (original): A method as claimed in claim 1, wherein:
duration between the receiving step and the spraying step falls within a range of one second or shorter.
3. (original): A method as claimed in claim 1 or 2, wherein:
the gas flow rate in the receiving step falls within a range between 5 % and 20% for the gas flow rate in the spraying step.
4. (original): A method as claimed in any one of claim 1 or 2, wherein:
the molten glass has a viscosity between 30 and 2 poises.
5. (original): A method as claimed in any one of claim 1 or 2, further comprising the step of:
taking out the glass gob from the molding die when a temperature of the glass gob falls within a range of a glass transition point or lower.

6. (original): A method of manufacturing a molded glass product, comprising the steps of:

reheating the glass gob manufactured by the method claimed in claim 1 or 2;
press-molding the glass gob so as to produce the glass molded products.

7. (original): A method of manufacturing an optical device, comprising the steps of:

manufacturing an optical device blank by the method claimed in claim 6; and
grinding and polishing the optical device blank in order to produce the optical device.

8. (original): A apparatus for manufacturing a glass gob comprising:
a molding die which has a gas spraying opening on a molding surface;
a molten glass supplying unit which supplies a molten glass to the molding die;
a molding die up/down moving unit which moves down the molding die at a speed higher than a down-flowing speed of the molten glass in order to cut the molten glass and remain the molten glass with a predetermined weight on the molding die;

a gas supply unit which supplies gas splayed from the gas spraying opening of the molding die; and

an adjustment unit which adjusts a flow rate of the gas sprayed from the gas spraying opening of the molding die,

wherein the adjustment unit adjusts the flow rate of a gas flow generated when the molten glass flow is supplied onto the molding die such that the gas flow rate is lower than a gas flow rate generated when the molten glass is left on the molding die with a predetermined weight.

9. (original): An apparatus as claimed in claim 8, wherein:

the adjustment unit comprises:

a gas flowing path which allows the gas from the gas supply unit to escape outside the gas spraying opening of the molding die; and

a flowing path opening/closing unit which opens the gas flowing path when the molding die is raised up by the molding die up/down moving means and which closes the gas flowing path when the molding die is lowered down by the molding die up/down moving unit.

10. (new) A method of manufacturing a glass gob, comprising the steps of :
receiving a down-flowing molten glass on a molding die;
separating the molten glass with a predetermined weight from the flowing molten glass by rapidly lowering the molding die;
remaining the molten glass with the predetermined weight on the molding die;
and

spraying the molten glass with gas in order to form the glass gob under such a condition that the molten glass is floated or slightly floated,

wherein the receiving step is carried out by spraying the molten glass with gas having a flow rate lower than the gas used in the spraying step, or the receiving step is carried out without performing the gas spraying.

11. (new) A method as claimed in claim 10, wherein:
the glass gob is made of a molding material used in a precise press molding process.

12. (new) A method as claimed in claim 11, further comprising the steps of:
reheating the molding material; and
precisely press-molding the reheated molding material so as to produce glass molded products.